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NORDIC SKIING

A TRAIL SYSTEM FOR THE TRUCKEE DISTRICT

Tahoe National Forest

For

Outdoor Recreation Management

U.S. Forest Service Shortcourse

Clemson University
1980-1981

Date: 2-5-81

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INTRODUCTION

A recognition of the tremendous growth in popularity of Nordic Skiing in the Western United States and more specifically the east side of the Sierra Nevada Mountains on the Tahoe National Forest has resulted in this investigation of the opportunities that can be provided on National Forest Land. This plan only addresses the opportunities that can be provided on the Truckee Ranger District and should become a part of a plan for the entire Tahoe National Forest.

An inquiry to TRAK Inc., a manufacturer of nordic ski equipment, brought out some growth information based on their market studies. This information indicates an annual growth in Nordic Skiing, since 1973, of thirty to thirty five percent. This growth is measured against a figure of four and one half million participants in 1978. (The response from Trak Inc. is contained in Appendix A of this report and provides other statistics on growth of the sport). It is estimated that eight to ten thousand skiers use National Forest land on the Truckee District for Nordic Skiing each year. This estimate is exclusive of commercial ventures which may serve an additional five to seven thousand skiers, partially on National Forest land. These numbers are probably extremely low compared to the number of people who would like to ski the area but are restricted because of lack of parking and other facilities. We estimate that the number of users will increase by three or four times if parking is provided. This estimate does not consider thirty percent, annual increases in numbers of skiers in the market. The winter of 1980-1981 has been a very poor year to discuss Nordic Skiing with the users since the end of January has not brought sufficient snow to attract people to the area but inquiries of local people, Nordic Ski Patrol volunteers and permittee's pointed out some information about the Nordic Skier and created the following impressions:

1. Nordic Skiers, like most other recreationists, fall within a broad range of experience level desires. The sport was first practiced by the adventurer who was seeking challenge and solitude. Today the spectrum stretches from this individual to the gregarious person who enjoys the company of others and finds security in numbers.

2. More people are turning to Nordic Skiing as a supplement or an alternative to alpine skiing which is becoming extremely expensive. The thrust of this plan is to identify a Nordic Ski Trail network on the Truckee District, assess the problems to the development of the system and make recommendations for management actions which will result in meeting the current and future needs of the Nordic Skier.

II. PROBLEM STATEMENT

In spite of the tremendous growth in use of National Forest land for Nordic Skiing over the last ten years, very little planning has been done by the Forest Service to meet the needs of the nordic skier or to help resolve problems which this use has created.

One specific problem that will be addressed is the "conflict with other users", specifically snowmobiles, which exists in many areas.

III. OVERALL GOAL

The overall goal of this plan is to identify and analyze the needs of the nordic skier, the barriers to meeting these needs and the solutions which will result in more opportunities and a higher quality recreation experience. This plan should become a part of a coordinated Nordic Ski Plan for the Tahoe National Forest.

IV. STUDY OBJECTIVE

The objective of this study is to provide a plan which will identify, through an analysis of opportunities and associated problems, a network of trails and accompanying facilities that will meet the current and future needs of the nordic skier.

V. APPROACH

The development of this plan must be looked at from two different perspectives, what do the users want and what can the resources of the Truckee Ranger District accommodate.

We have discovered that users desires are diverse and cannot be predicted based on a particular segment or class of the population and in fact their desires may change as their skill level and thus their confidence increases. It then follows that the approach to use is to analyze what can be provided by the resources available and then to monitor use on a continuing basis to determine the adequacy of facilities and the effect on experience levels by increasing numbers of skiers. An attempt was made to use mathematical projections to answer questions about numbers of skiers to allow on a trail at one time but the variables of skier arrivals at the trailhead and speed of individual skiers made any calculations useless.

Numbers of skiers that can use an area is directly related to the amount of parking available. Planned parking is based on the estimated number of skiers that would like to use an area and is controlled by an estimate of the number of skiers that can use the area while maintaining an average experience

level. The average experience level is assumed to be meeting fifteen to twenty other groups of skiers per day.

VI. IDENTIFICATION OF OPPORTUNITIES AND PROBLEMS

A. Opportunities

An opportunity is defined as "a good chance for advancement or progress". For the purposes of this plan an opportunity is a chance to provide for nordic skiers to enhance their experiences by opening up more area to them.

The following were considered as opportunities:

1. Providing parking and other facilities at areas which currently receive little or no use by nordic skiers.

2. Opening up areas that can provide a full range of experience levels from the near urban to the primitive.

3. Fulfilling Forest Service responsibility to provide for use of National Forest land by a significant segment of the outdoor recreating public.

4. Encouragement of private enterprise to provide facilities on private land to serve the skier who then uses National Forest land.

5. Allow private individuals to construct facilities on National Forest land under special use permit and charge the skier for their use. (Present policy precludes laying track on National Forest land and charging for its use)

6. Sign routes for skill levels and to prevent skiers from becoming lost.

B. Problems

The definition of problems, for the purposes of this plan, is the combination of issues presented by the Forest Service and concerns expressed by the public which adversely affect the nordic skiing public in practicing their sport on National Forest land.

The following are the basic problems that require resolution:

1. Parking - deciding where, how much and who should provide parking.

2. Snow Plowing - Encouraging snowplowing by county and state road departments where their participation is logical and contracting for snow removal at other

sites.

3. Rights of Way - Resolving rights of way problems where routes cross private land by negotiating with the landowners.

4. Conflicting uses - Look for ways to resolve conflicts between nordic skiers and snowmobilers through separation of uses where possible and administration where not possible.

These are not all of the opportunities or problems involved with nordic skiing on the Truckee District but they are the ones which must be addressed in this report to provide a comprehensive plan for the next ten years.

VII. THE TRAIL SYSTEM

The following is a brief Location, Description, Discussion of Facilities and Problems Requiring Resolution for a Nordic Ski Trail System for the Truckee District of the Tahoe National Forest. There is also included a 1:24000 scale U.S.G.S. Quad map showing the location of each trail. A matrix summarizing some of the more pertinent information about each trail is found in Appendix C of this report. Much of the terminology and standards for locating trails was obtained from the booklet "SKI TOURING TRAIL PLANNER" written by Timothy B. Knopp and Jack P. Maloney and published in 1973 by the North Star Ski Touring Club of Minnesota and the United States Ski Association - Central Division.

CABIN CREEK LOOP

I. LOCATION

This trail is a "Primary Loop with Satellite" type trail which begins at the junction of the Placer County Land Fill Road and the Cabin Creek Road in Section 28, T17N, R16E. It follows the Cabin Creek road to its intersection with the Stanford Wood Camp road. At this point a satellite trail follows an old road over to Brush Creek and comes back to Cabin Creek on another old road. The main trail follows the Stanford Wood Camp road to its junction with the old four wheel drive road in the SW1/4 of Section 32. From this point the trail follows the four wheel drive road northward, ties in to an old logging road south of Jackass Point and loops back to the Land Fill road.

II. DESCRIPTION

The trail utilizes existing dirt roads, constructed for harvesting timber. It should be considered high intermediate and advanced skiing. The length might be handled by an average skier but there are some areas that exceed 20% grades and these would make rough skiing for all but the experienced.

The area should be signed for intermediate and advanced skiing.

Some of the volunteer Nordic Ski Patrol members consider this area to be prime skiing. As parking is provided it will probably attract large enough numbers of skiers that an additional loop on to private land will have to be considered to disperse skiers, avoid crowding and maintain a high experience level.

This area is currently covered by a non-exclusive outfitter-guide permit. It will not affect the public's use of the area. The main loop of this trail is 6.6 miles and the satellite can be skied at 3.4 miles or will add approximately 1.5 miles to the main loop. (see map #1)

III. FACILITIES

Commercial facilities are available in Truckee, approximately 5 miles from the trailhead.

Parking can be provided on National Forest land at the junction of the Cabin Creek and Land Fill roads. Ted Gregg's "Dispersed Winter Sports Facility Plan" addresses parking at this location.

There are no toilet or other facilities available along this trail. Development of trailhead parking plans should incorporate plans for a toilet when use reaches a level where sanitation becomes a problem.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

Ted Gregg's "Dispersed Winter Sports Plan - Tahoe National Forest" indicates that a parking lot for 30 vehicles is possible and desirable at the junction of the Cabin Creek and Land Fill roads. This parking proposal is a part of the Tahoe National Forest Goals and Objectives and the Truckee District is attempting to have it moved up in priority to FY 82 or FY 83. It seems logical to contract with Placer County to do the snow plowing since they have to plow the road to the Land Fill.

B. Rights of Way

If it becomes necessary to develop an additional loop to preserve the experience level in this area, it will be necessary to get some rights of way from Louisiana Pacific Corporation. This is not a high priority presently.

C. Conflicting Uses

At present there is little use of the area by snowmobilers but as parking is provided that use will probably increase. Alternate routes for snowmobiles are possible by acquiring rights of way. The first step will be to try to deal with conflicts administratively.

PANONIA - WOODCHOPPER LOOPS

I. LOCATION

This trail system is a "Dendritic" type system with two "satellite loops" at the end. It begins on Panonia road at the end of the pavement on the County road in Section 36, T18N, R16E. It follows the county road across Prosser Dam and around the reservoir to its junction with the road to Boca Reservoir. It then follows the Boca Road to the Woodchopper Road, the Woodchopper Road to the Old Reno Road and back to the Boca Road junction forming loop #1. Loop #2 follows the old Reno Road from the Boca Road junction to the Slaughterhouse Road, the Slaughterhouse Road to its junction with an old foot trail in Section 23, T18N, R16E, and the foot trail back to the Old Reno Road.

II. DESCRIPTION

The trail system utilizes dirt roads and one old, rarely used, foot trail.

The terrain along the route is basically flat and a beginning skier can almost set his own course. The trail, except for the opportunity to add distance by following other roads in the area, will provide little challenge for the advanced skier but provides excellent opportunities for beginners and intermediates. The trail system should be signed to provide guidance for skiers unfamiliar with the area.

Loop #1 provides a total of 5.2 miles and Loop #2 skies an almost identical distance. Skiing the two loops in a figure eight will provide a distance of 8.2 miles.

The trail system, because of the off trail opportunities, short distances and open vistas will not provide a feeling of being alone and thus will not provide a high experience level for people looking for solitude.

It is almost within sight of the town of Truckee.
(See map #2)

III. FACILITIES

A complete, full facility community is available to the user at Truckee, approximately four miles from th trailhead. Parking for this system was proposed in Ted Gregg's "Dispersed Winter Sports Facility Plan" for the Tahoe National Forest. This will be provided on National Forest land in Section 36.

There are toilet facilities available at Annie McCloud Campground near the east end of Prosser Dam. A chemical

toilet may be needed at or near the parking area.

There are no other facilities avialable along the trail.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

The parking will be provided by construction of a twenty car parking lot on National Forest land adjacent to the paved portion of the County Road in Section 36. Snow plowing will have to be done by contracting with Nevada County or a private company.

B. Rights of Way

There are no rights of way necessary to develop this trail.

C. Conflicting Uses

This area is currently used by snowmobiles and conflict appears to only be avoidable by cooperation of the users and close administration. Separation of uses is possible but not practical without administration.

A separation of uses, signing program would be worth investigation.

SAGEHEN - INDEPENDENCE LOOP

I. LOCATION

This trail system is a "stacked loop" system which begins at Sagehen Summit on Highway 89 North and follows the Independence Lake road to its junction with the proposed Golden Timber Sale road. The short loop follows the Golden Timber Sale road to the Sagehen Creek road and then back to Sagehen Summit. The long loop continues along the Independence Lake road to its junction with the old road south of Independence Lake. It follows this old road to its end and then follows an old skid road over the ridge and into the head of Sagehen Creek. The skid road enters the logging road along Sagehen Creek which leads to the Sagehen Creek road and back to Sagehen Summit. This system is in Sections 4, 5, & 6 T18N, R16E Sections 31 and 32, T19N, R16E, Sections 35 and 36 T19N, R15E and Sections 1,2,3,9,10, & 11, T18N R15E.

II. DESCRIPTION

These trails utilize existing, dirt logging roads and skid roads for their entire lengths.

The system is long, 8.0 miles for the short loop #1 and 15.3 miles for the long loop #2.

This is all advanced and intermediate skiing because of the long distances. Maximum grades are around 14-17% and then only for short pitches.

The trails should be signed for skill levels.

These trails have the potential to provide a high experience level for the more advanced skier. Overcrowding will not be a problem in the forseeable future.
(see map #3)

III. FACILITIES

Commercial facilities are available in Truckee, approximately 10 miles to the south on Highway 89.

Parking will be provided on National Forest land at Sagehen Summit.

Toilets are available at Sagehen Campground along the trail in Section 6, T18N, R16E.

There is a wildlife experiment field station from the University of California at Berkeley also in Section 6. This station is under special use permit from the Forest Service and is occupied on a year-round basis. It is not available

for use by cross country skiers.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

Parking will be provided at Sagehen Summit by construction of a parking lot for twenty cars on National Forest land. (See Ted Gregg's "Dispersed Winter Sports Facility Plan" for the Tahoe National Forest). Snow plowing will be done by Cal-Trans.

B. Rights of Way

Rights of way will be needed in the northwest corner of Section 2, Section 3 and Section 9 T18N, R15E. for use of this trail system.

C. Conflicting Uses

Snowmobiles make limited use of this area currently. If this use increases due to the additional parking provided, it may be necessary to restrict them to the Independence road because of the wildlife studies in Sagehen Creek. If this happens then some separation of uses would result but conflict would still have to be resolved on the independence road.

ROSSER CAMPGROUND LOOPS

I. LOCATION

This trail is a "figure eight" system which can be skied as a single short loop also. It begins at the junction of Highway 89 North and the Prosser Campground road. It follows the Prosser Campground road to the Prosser Group Camp, loops down along Prosser Reservoir and back to the road to make loop #2, follows the Lakeside Campground road to the Campground and the old, closed road back to highway 89 to make loop #1. This system is in Sections 25, 26, & 27 T18N, R16E.

II. DESCRIPTION

This trail system utilizes paved roads, dirt roads and a short piece of cross country along the reservoir shoreline.

It is basically flat and is recommended for beginners.

The route will need signing because the terrain is flat and the vegetation is open pine stands making it easy for beginners to become disoriented.

The first loop is 1.9 miles and when skied as a double loop or figure eight the distance is 3.96 miles.

The experience level, because of the flat terrain, open vistas and potential for large numbers of people to use the area, will be low for those skiers seeking solitude.
(See map #2)

III. FACILITIES

Commercial facilities are available in Truckee, approximately five miles to the south.

Parking can be provided by plowing snow from the paved area at the junction of Highway 89 and Prosser Campground roads. Toilets are available at Lakeside, Prosser and Prosser Group Campgrounds. There are no other facilities available.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

Parking will be provided for fifteen cars by plowing the paved area at the junction of Highway 89 and Prosser Campground road and part of the road if necessary. Plowing can be provided by Cal-Trans.

B. Rights of Way

No rights of way are needed.

C. Conflicting Uses

This area is currently used by snowmobiles and this use will probably increase as parking becomes available.

Signing of separate snowmobile routes is possible in this area but tight administration would be necessary to eliminate conflicts.

CASTLE VALLEY - ROUND VALLEY LOOPS

I. LOCATION

This trail is a "primary loop with Satellites" type trail. It begins at the Castle Peak Interchange on Interstate 80 and follows the Castle Peak road to Castle Valley. By utilizing an old logging road and a significant amount of cross country travel it makes a satellite loop of the valley. The main trail continues on the Castle Peak road to its junction with the old Jeep road to Round Valley. It follows the Jeep road and then makes another satellite loop of Round Valley. From Round Valley it cuts cross country around the headwaters of Lower Castle Creek, intersects the Sand Ridge Trail system and follows it to Lower Lola Montez Lake. It then follows the Lower Lola Montez trail to the trailhead on the frontage road east of the Donner-Summit Fire Department station.

II. DESCRIPTION

This trail utilizes dirt roads, existing summer trails and incorporates some cross-country travel.

It is the heaviest used, most popular system on the Tahoe at present.

It should be signed for skill level and it will probably be the first area requiring intensive management to preserve experience levels.

It is currently being managed, to a degree, because of the involvement of our volunteer Nordic Ski Patrol. This program is basically an assistance-information program.

The area is currently covered by several non-exclusive Outfitter-Guide permits which will not affect the public's use.

Skiing distances on this system are: Loop #1 - 2.45 miles, Loop #2 - 4.34 miles and Loop #3-8.70 miles. Loops 1 and 2 are very popular but loop #3 is seldom used. It is not a true loop unless the skier returns to the trailhead cross-crountry above I-80. If it is skied as a loop the distance is approximately 12 miles.

There are some grades on the trail of 27% and many in the 12% to 20% range.

Beginners can ski the lower reaches of the system but the longer distances are not recommended for their use.
(See map #4)

III. FACILITIES

Commercial facilities are available at Soda Springs,

approximately seven miles from the trailhead.

Parking for use of this trail system is currently, only available at Boreal Ridge Ski Area at a cost of $5.00 per day. Parking opportunities exist at the I-80 - Pacific Crest Trail trailhead facility and on land that the Forest Service is attempting to acquire near the Boreal Ridge interchange.

There is an "A" frame type ski hut in Round Valley which is maintained by the Sierra Club. It is called the "Peter Grubb Hut" and is available for use by anyone, preferably by reservation with the Sierra Club. This hut is on National Forest land. Toilets are available at Boreal Ridge Ski Area and at Peter Grubb Hut. Another toilet is needed in Castle Valley near the Old Jeep road junction.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

The only parking available, at present, for this popular area is at the Boreal Ridge Ski Area. The ski area owner plows a frontage road and charges the cross country skiers $5.00 per day to park.

The Forest Service has investigated the possibility of constructing the parking for the P.C.T. trailhead, at the end of the frontage road, so that it could be plowed for winter time parking. The location of this trailhead and the extreme amount of snow precluded this at present but future demand could change this direction.

That portion of Section 13, T17N, R14E which lies north of Interstate 80 at the Castle Peak-Boreal Ridge interchange belongs to Southern Pacific Land Company. It has been identified in the Donner Summit Composite plan for acquisition by the Forest Service. At least one corporation has indicated an interest in acquiring permits to provide parking, rentals, food and possibly other services at this location. A small amount of parking could be made available at the Lola Montez Lake trailhead near the Donner Summit Fire Station by contracting with Cal-Trans or Placer County to plow the frontage road.

B. Rights of Way

A right of way is needed in Sections 13 and 11 for a snowmobile route to avoid user conflicts on the road to Round Valley. We also need a right of way in Section 11 for the Cross Country Ski route on the Old Jeep road to Round Valley. These rights of way are on Southern Pacific Land Company land.

Rights of way are needed for the long loop in Sections 3

and 5 (Southern Pacific Land Co.) and in Sections 9,15,16 and 22 (Towle Estates).

C. Conflicting Uses

There is a history of conflict between Nordic Skiers and Snowmobilers in this area. In 1979 the Forest Service reconned a snowmobile trail through Sections 13 and 11 which will allow the snowmobilers to go east of Andesite Peak and reach the Paradise Lake area while avoiding the favorite routes of the Nordic Skiers. This has alleviated most of the conflict.

POLE CREEK LOOPS

I. LOCATION

This trail system resembles a "Stacked Loop type trail with a satellite loop". It is located in Sections 16,17,18 & 20 T16N, R16E and Section 13, T16N, R15E in the Pole Creek drainage. See the attached map for specific locations. A linear description of the trail system would be difficult because of the lack of landmarks and the fact that the old road systems utilized are not named or numbered.

II. DESCRIPTION

This trail system uses several dirt roads in the Pole Creek drainage. It leaves Highway 89 south on the main Pole Creek road and follows it and several other old logging roads, eventually forming five loops. The individual loop distances from the starting point are: Loop #1 - 3.4 miles, Loop #2 - 5.9 miles, Loop #3 - 6.8 miles, Loop #4 - 7.2 miles and Loop #5 - 10.4 miles.

This system can accommodate all skill levels of Nordic Skiers and because of the number of skiers the area can absorb it can provide for experience levels from a very social situation to almost complete solitude.

The entire system should be signed to identify trails and for skill levels. The area is presently under a non-exclusive outfitter-guide permit to Big Chief Guides. They provide rentals, tours and lessons and they do groom track and request a donation for the use of the track.
(See map #5)

III. FACILITIES

Some commercial facilities (lodging and food services) are available at Big Chief, near the trailhead. Full services are available in Truckee, approximately seven miles from the trailhead.

Some commercial parking is available at Big Chief with the potential for additional development. It would be possible to develop some parking on National Forest land at the junction of Highway 89 and the Pole Creek road. There are no toilet or other facilities along the trail. If this area reaches its potential for skiers at one time, it will be necessary to develop toilet and garbage facilities at strategic points along the trail.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

There are two parking opportunities for this trail, commercial parking at Big Chief and parking on National Forest land. Another possibility, that will require further research, is to issue a permit to a private company to construct and operate a parking area on National Forest land and charge for its use.

If the parking is provided by a private company then snow plowing is not a problem. If the Forest Service provides parking then snow removal would have to be contracted, possibly with Cal-Trans. Forest Service provided parking should be the lowest priority to avoid competition with the private venture.

B. Rights of Way

A short piece of right of way is needed in Section 19, T16N, R16E for Loop #3 and in Section 13, T16N, R15E for loop #5. Both of these sections are involved in a pending land exchange for property around the Truckee Airport. No rights of way should be requested until the final decision is made on the land exchange.

C. Conflicting Uses

This area is closed to over the snow vehicles by the Tahoe National Forest Off Road Vehicle Plan. This basically eliminates the possibility of conflicitng uses.

ONDEROSA PALISADES - BALD MOUNTAIN LOOP

I. LOCATION

This trail is a "stacked loop" trail with a lead in trail to the loops. The trail begins where the Sawtooth Road enters Ponderosa Palisades Subdivision in Section 22, T17N, R16E. It follows the Sawtooth Road to a point in Section 27 due west of Bald Mountain where it begins two large loops, one inside of the other, by using another segment of the Sawtooth Road, a couple of existing logging roads, a logging road to be built on a Fiscal Year 1982 timber sale and minor trail construction consisting of some brushing.

II. DESCRIPTION

This trail utilizes, for the most part, existing dirt roads. Some trail will have to be constructed to tie the old logging roads together to finish the loops but this is seen as more of a signing problem than a physical construction problem.

A short piece of road that will be constructed by the FY '1982 Baldson Timber Sale will be utilized to complete the larger outside loop.

The trail is relatively flat and will provide some excellent beginner and intermediate skiing.

The trail is the north end of a "point to point" trail discussed elsewhere in this report as the Ponderosa Palisades to Tahoe City trail and some of the same information is repeated here.

The trail should be signed for beginners and intermediates and the intersection with the advanced trek should be well marked.

Because of the close proximity to Truckee and the quality of the skiing potential this trail could become crowded and may have a lowered experience level in the future. This will be largely controlled by parking opportunities provided.

The outer loop of this trail provides a total 6.8 mile trip while the inner loop provides a total 5.4 mile trip (see map #6)

III. FACILITIES

Commercial facilities are available in Truckee, approximately three miles away.

Parking can be provided on National Forest land in Section 22

by paving a short stretch of the Sawtooth Road and a parking lot to accommodate thirty cars.

There are no toilet or other facilities available along this trail but future use of the area may dictate that toilets be constructed, at least at the trailhead.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

A parking lot will have to be developed along the Sawtooth Road in Section 22, T17N, R16E. This will require paving a short stretch of the road and the parking lot. An alternative to the parking lot would be to double-lane pave a short stretch of the Sawtooth Road, provide a small turn-around for vehicles and snow plows and allow parking on one side of the road. An agreement with Nevada County or a contract with a private company will be necessary to accomplish snow removal.

B. Rights of Way

There are no legal rights of way problems but access to the trailhead area is through a Subdivision, (Ponderosa Palisades). It is difficult to explain how to get to the trailhead and a brochure-map or signing will be necessary.

There may also be some resistance by homeowners to our publicizing this trail because it encourages people to travel through their subdivision.

The streets are all county roads.

C. Conflicting Uses

This area is currently used by Nordic Skiers and Snowmobilers. I don't anticipate that the conflict will intensify but there is not much opportunity for separation of uses except by constructing trail off of the existing roads. The conflicts will have to be dealt with by administration and encouragement of the users to help solve the problems.

SUMMIT LAKE LOOP

I. LOCATION

This trail is an out and back type trail with a small loop around Summit Lake. It begins at the Cal-Trans, Interstate 80, Westbound rest-stop, follows the Summit Lake Trail northward to Summit Lake (a distance of one and one-half miles), makes a short loop around the lake and returns along the same trail to the rest stop.

II. DESCRIPTION

The trail utilizes an existing summer foot trail and traverses some beautiful, high Sierra country. The disadvantages of this trail are that it is relatively short (3.5 total miles), has a couple of steep pitches (up to 15%) and there are problems with parking at the rest-stop.

It is a good beginner's trail despite the problems and should be signed for beginner use.

This trail has the potential to become crowded very quickly because of the short length and the out and back situation. Since it is recommended as a beginner trail and since beginners tend to feel more secure by seeing other people the crowding does not appear to be an important issue.

III. FACILITIES

Commercial facilities are available at Soda Springs (approximately 6 miles) or Truckee (approximately 10 miles).

Parking is available at the I-80 Rest Stop.

There are also restroom and telephone service available there.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

Parking is available at the I-80 westbound rest stop and the snow plowing is done by Cal-Trans. This parking for use of the ski trail is discouraged by Cal-Trans because of their concern for the overcrowding situation at the rest stop and their intent that it be used by the travelling public and not as a destination for Nordic Skiers.

It would be possible for the Forest Service to pay for an addition of a few parking spaces to the rest stop for the use of winter skiers and summer hikers.

B. Rights of Way

There are no rights of way problems other than the right to use the parking mentioned above.

C. Conflicting Uses

The potential for conflict with snowmobiles exists if the snowmobilers start using the Summit Lake trail as a route to Warren Lake. Cal-Trans will probably discourage this use by discouraging the parking of vehicles with snowmobile trailers.

HOBART MILLS - SAGEHEN LOOPS

I. LOCATION

This trail system is a "maze" system created by numerous old logging roads. These roads do not have names or road numbers and in some cases are connected by jeep trails. Verbal description of the system would be confusing and almost impossible to follow. See the attached map for locations which will be marked on the ground. The system lies in Sections 4,5,7,8,9,16,17 and 18 of T18N, R16E and Sections 12 and 13 of T18N, R15E.

II. DESCRIPTION

The system utilizes several old logging roads and jeep trails.

It traverses some islands of timber and numerous plantations within the Donner Ridge Burn.

The system can provide skiing for the full range of skill levels based on distances and terrain.

Extensive signing will be needed to identify routes by skill level and to prevent skiers from becoming lost. There are some short segments of trail with grades up to 15%.

The loops which have been identified measure 11.3 miles for loop #1, 14.3 miles for loop #2, 14.0 miles for loop #3 and 4.7 miles for loop #4. There are an infinite number of side trips that can be taken from this basic system.

The experience level for this area would be high if the scenery was more spectacular. The opportunity to find solitude is good because of the trail lengths and the ability of the terrain to absorb skiers.
(see map #3)

III. FACILITIES

Commercial facilities are available at Truckee, approximately seven miles away. Parking can be provided by plowing the paved entry to the road leading to the Forest Service Work Center. Future parking can be developed on National Forest land. Toilet facilities could be developed at the Forest Service Work Center site but no facilities exist at present for use by the skiers.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

Limited parking (approximately five cars) can be provided

by plowing snow off of the entry area to the Forest Service Work Center. This will not suit the needs of the skiers who potentially could use this area. A thirty car parking lot can be constructed at the work center or by paving the road to the Work Center double lane, plowing the snow and allowing parking on one side only.

Snow plowing will have to be done by Cal-Trans or by contracting with a private compnay.

B. Rights of Way

No rights of way are needed.

C. Conflicting Uses

There is little or no snowmobile use at present. If increased parking encourages snowmobile use it will be necessary to deal with the situation. There are several routes where separation of uses can be accomplished.

PROSSER HILL LOOP

I. LOCATION

This trail utilizes the same trailhead as the Prosser Campground loops and is west of Highway 89. It follows an old logging road system up on to Prosser Hill, turns north, still on the old road, towards Prosser Creek and then makes a loop by coming back south to the same road system common point. These roads do not have names or road numbers. The trail is within Sections 21,27 & 28, T18N, R16E.

II. DESCRIPTION

The trail follows old, dirt logging roads for its entire distance of 5.1 miles. It has some grades up to 12% but should be considered a beginner trail. The trail should be signed because it is almost entirely within plantations from the Donner Ridge fire and the old road system will be hard to follow when the area is under snow.

The experience level on this trail will be relatively low since the trail is short and the scenery is not outstanding. (see map #2)

III. FACILITIES

Commercial facilities are available in Truckee, approximately 5 miles away. Parking will be at the junction of Highway 89 and Prosser Campground road

There are no toilet or other facilities available along the trail.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

Parking will be provided for fifteen cars by plowing the paved area at the juction of Highway 89 and Prosser Campground road and as much of the road as needed. Plowing can be provided by Cal-Trans.

B. Rights of Way

There are no rights of way problems.

C. Conflicting Uses

The potential exists for conflicts with snowmobiles but the area does not appear to provide the type of terrain that the snowmobilers are looking for. If snowmobile use did increase drastically, we would have to look at the potential for damage to the young trees in the plantations.

PONDEROSA PALISADES TO TAHOE CITY

I. LOCATION

This is a "Point to Point" trail which begins off of Silver Fir Drive in Ponderosa Palisades Subdivision (Section 22, T17N, R16E). From this point it follows the Sawtooth Road south to Mt. Watson where it intersects the Mt. Watson road and continues along it to its junction with road from Antone Meadows to Tahoe City. It follows this road and intersects state Highway 89 just west of Tahoe City.

II. DESCRIPTION

This trail utilizes dirt roads for its entire length, approximately 16.6 miles. The trail or road system is used in the summer for marathon type races and in the winter for Nordic Ski races. It is recommended only for advanced skiers because of its length and, depending on the direction it is skied, some long sustained grades with short pitches up to 14%.

This trail can provide the solitude desired by some nordic skiers, for many yers to come. Both ends of the trail can provide some excellent skiing for beginners and intermediates on an out and back basis. The north end of the trail is discussed in another part of this report as an excellent "loop-trail" for beginners and intermediates.

An Outfitter - Guide permit has been issued for non-exclusive use of the southern one-third of the trail. It will have no effect on use by the public.

This trail should be signed for its entire length, with suggested stopping points for beginners and imtermediates. (see map #8)

III. FACILITIES

Commercial facilities are available at Truckee on the north end and Tahoe City on the South.

Parking on the north end of the trail can be provided on National Forest land by paving a short stretch of the Sawtooth Road and a parking lot to accommodate thirty cars. Parking on the south end of the trail will be alongside state Highway 89 and on private property. This end of the trail is in the Lake Tahoe Basin and should be a low priority for development to discourage further auto traffic into that area.

There are no cabins or toilet facilities available along this trail.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

A parking lot will have to be developed along the Sawtooth Road in Section 22, T17N R16E. This will require paving a short stretch of the road and the parking lot. An alternative to the parking lot would be to double-lane pave a short stretch of the Sawtooth road, provide a small turn-around for vehicles and snow plows and allow parking on one side of the road. An agreement with Nevada County or a contract with a private company will be necessary to accomplish snow removal.

B. Rights of Way

There are no legal rights of way problems but access to the trailhead area is through a Subdivision, (Ponderosa Palisades) it is difficult to explain how to get to the trailhead and a brochure - map or signing will be necessary.

There may also be some resistance by homeowners to our publicizing this trail because it encourages people to travel through their subdivision.

The streets are all county roads.

C. Conflicting Uses

This area is currently used by Nordic skiers and snowmobilers. I don't anticipate that the conflict will intensify but there is not much opportunity for separation of uses except by constructing trail off of the existing roads. The conflicts will have to be dealt with by administration and encouragement of the users to help solve the problems.

DONNER SUMMIT - MT. ANDERSON

I. LOCATION

This trail is an "out and back" trail beginning at the junction of old Highway 40 and the Lake Mary road in Section 16, T17N, R15E. It follows the Lake Mary road to Lake Mary than follows the old dirt road east of Lake Mary to the switchback south of the Southern Pacific Railroad Tunnel. From this point it goes "cross-country" to the saddle between Mt. Judah and Mt. Lincoln and then follows the ridge southward to Anderson Peak.

II. DESCRIPTION

The trail utilizes paved road, dirt roads and existing summer trails. It also crosses some areas where no trail exists. It is an out and back type trail of intermediate length (map scaled at 11.3 miles). The length of the trail indicates that an intermediate skier could traverse it but the steep grades (25%, 28%, 50% and 30% at critical points). avalanche potential, and precarious location on a narrow, windswept ridge make this a trail that should only be tried by the most experience, advanced skier. This is a trail that does not, at least presently, have an overcrowding situation. It will probably remain this way due to the degree of difficulty.

A non-exclusive Outfitter-Guide permit has been issued for the Anderson Peak area. It will have no effect on the use of this trail by the public.

The trail is not being proposed for trail signing. Signing would be almost impossible due to open exposures and extreme snow depths.
(see map #9)

III. FACILITIES

Facilities such as general stores, lodging, restaurants and post office are available at Norden and Soda Springs within four miles of the beginning of the trail.

Parking could be provided by plowing snow off of the road to Lake Mary. This is a road that is not plowed at present. The State of California currently plows old Highway 40 but has stated its intention to stop plowing it after the winter of 1980-1981. Space for parking five cars should be sufficient and this work could be contracted for with Placer County or whatever agency ends up with the responsibility for plowing the highway.

A one room trail cabin (the Benson Hut) is maintained on Anderson Peak by the Sierra Club. It can be used for a rest stop at the turn around point, an overnight stop for a two day trip or in emergencies for injured skiers or search and rescue

efforts. There are no toilet facilities along this trail.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking - Snow Plowing

This will have to be resolved with Cal-Trans, and Placer County.

B. Rights of Way

A right of way for the skiers will be required across the private property east of Lake Mary.

C. Conflicting Uses

The only potential for conflict exists on Mt. Lincoln where the Nordic skiers will share a steep road with Alpine skiers for a short stretch. This will be within the permit area of Sugar Bowl Ski Area and will have to be worked out with their management.

ALPINE MEADOWS TO MCKINNEY CREEK

I. LOCATION

This is a "point to point" trail beginning at the Five Lakes Trailhead on the Alpine Meadows road in Section 5, T15N, R16E. It follows the Five Lakes Trail to Five Lakes, and then along the Five Lakes Creek trail to its junction with Big Springs trail. It then follows the Big Springs trail to where it rejoins the Five Lakes Creek trail and on to Diamond Crossing. From this point it follows the Powderhorn trail to the Barker Pass road, the Barker Pass road to the Niehaus road, the Niehaus road to the McKinney Creek road and the Mckinney Creek road to Lake Tahoe.

II. DESCRIPTION

The trail utilizes existing summer trails and dirt roads. It is a through trail which will require that skiers be dropped off at one end and picked up at the other. The trail has some excellent relatively flat stretches along Five Lakes Creek, Barker Meadows and Mckinney Creek but the climb from Alpine Meadows to Five Lakes and from Diamond Crossing to Barker Pass have long grades up to forty percent. These steep areas combined with the extreme length (30 miles) makes this trail only suitable for the advanced skier and mountaineer. There are several areas along this trail, especially the Five Lakes trail and Powderhorn trail, which present severe avalanche potential.

This trail does not now and because of its length and difficulity, will probably never have an overcrowding problem. The trail should be signed for advanced skiers. This will also serve as a guide for alpine skiers who ski off the back side of Ward Peak and get lost.
(see map #10)

III. FACILITIES

Commercial facilities such as lodging, restaurants and general stores are available at Alpine Meadows and Squaw Valley on the north end of the trail and at Lake Tahoe on the south end.

Parking areas are not presently available on either end of the trail.

There is one room, "A" frame cabin with a sleeping loft, under permit to the Sierra Club, at Five Lakes. This is called the Bradley Hut and is designed and available for cross country skiers. It will be necessary to sign the trail from the main trail to the cabin.

There is also a small Forest Service trail crew cabin at

Diamond Crossing which could be made available to skiers.

A toilet, that has been designed for use in deep snow, is available at the Bradley Hut.

IV. PROBLEMS REQUIRING RESOLUTION

A. Parking and Snowplowing

The trailhead parking along the Alpine Meadows road is very restricted. It is suitable for five cars in the summer but it is on the county road right of way and is unpaved. Because of snowplowing problems and avalanche potential, parking along this road is prohibited.

The situation on the south end is not much better than the north end since the roads leading to the Mckinney Creek road wind through a subdivision. The point where the Mckinney Creek road leaves the subdivision is constricted and would not provide room for a parking lot development. Since this trail will require two days to ski, it will be suggested that users arrange to be dropped off and picked up. Trailhead parking will not be provided at present and will probably be discouraged because of vehicle problems in the Lake Tahoe Basin.

B. Rights of Way

There are no rights of way problems for the use of this trail.

C. Conflicting Uses

The potential exists for conflict with snowmobiles in the Barker Pass, Barker Meadows and McKinney Creek areas but there are so many alternate routes in these areas that the situation can be dealt with if it arises. The remainder of the area is closed to motor vehicles so the chance for conflict is all but eliminated.

VIII. MANAGEMENT REQUIREMENTS AND CONSTRAINTS

A. A monitoring plan will be established as a supplement to this plan. Permit systems will only be considered when monitoring indicates carrying capacities (based on user desires) have been exceeded.

B. A Plan for dissemination of information to nordic skiers will be developed in conjunction with development of the trail system. Some methods to be considered are, radio and television spots, newspapers, brochures, bulletin boards at ski shops and sporting goods stores, and nordic ski patrol volunteers.

C. Trail signing, though recommended in this report, will only be done after coordination with the Forest Supervisor and the Regional Forester to provide uniformity between areas within the Region.

D. Whenever possible, expand the volunteer nordic ski patrol to provide better information to the public and a safer experience for the skier.

E. Continue to provide and expand where possible the avalanche forecasting service to nordic skiers.

APPENDIX A

Letters and Responses from the Public

This is a compilation of the resonses received from the public. Others were contacted but evidently chose not to respond. Lack of snow in the Truckee area prevented an opportunity to interview skiers on the ground.

The following is a set of questions asked of Nordic Ski Patrol Volunteers and the answers of the three who responded:

1. How do you feel about your volunteer effort? Do you feel that you are providing more service to the public or to the Forest Service?

   Gordon Hall

   To the public, but is doing it mainly because he enjoys cross country skiing and can do this while using Forest Service facilities and provide a public service.

   Don Berkowitz

   A little of both.

   Dorothy Ericson

   About equally to both.

2. Do you think there are enough people and enough interest to expand the volunteer srvice to other areas? If so, which areas?

   Gordon Hall

   Don't know

   Don Berkowitz

   Its impossible to say anything without specifics. If you mean number of areas to patrol, the answer is yes. Future areas are most dependent upon parking.

   Dorothy Ericson

   Not enough volunteers to expand at this time.

3. Do you feel we are giving enough and the right type of information to the public? If not, what should we be giving them?

   Gordon Hall

   This is a low key program and I would like to see it maintained that way. Perhaps a sign could be posted at the trailhead informing the public that the trails are patrolled.

   Don Berkowitz

   Yes

   Dorothy Ericson

   Yes

4. Do you feel that there is a conflict between nordic skiers and snowmobilers or other sports? If so what could be done to ease the conflict?

Gordon Hall

I think certain areas should be set aside for snowmobilers, areas away from the ski trails for nordic skiers.

Don Berkowitz

Some conflict, obviously separate areas would be desirable.

Dorothy Ericson

No, very few snowmobiles.

5. How do you feel about signing for skill and experience levels? How could this be done and by whom?

Gordon Hall

Don't understand the question.

Don Berkowitz

Sure, why not. We could provide the manpower but not unless the Forest Service provides parking.

Dorothy Ericson

No opinion

6. Do you think the Forest Service should be marking trails and if so, why?

Gordon Hall

Yes, there are so many novice skiers that feel more comfortable on a marked trail.

Don Berkowitz

Yes, to encourage the dispersal of concentrations of people.

Dorothy Ericson

Not anymore than is done now.

7. How do you feel about commercial nordic ski ventures on private land? On National Forest land?

Gordon Hall

On private land o.k., on National Forest land I don't believe they should charge a fee for trail use.

Don Berkowitz

Its their right on private land, hell no on National Forest if it restricts the public.

Dorothy Ericson

Nordic skiers seem to be individualistic, I would discourage commercialism.

8. On a scale of one to ten, with one being an individual who likes crowds and ten being an individual who likes complete solitude, where would you put <u>today's</u> cross country skier?

Gordon Hall

Others about a 4, as evidenced by the success of the commercial nordic ski centers - myself a 7, I prefer one or two other persons and enjoy seeing others on the trail but not a congested trail.

Don Berkowitz

9

Dorothy Ericson

8 to 10

A brief discussion with LaRoy Carroll, Superintendent with Cal-Trans at Truckee indicated that his opinion concerning parking and snow plowing had not changed since he discussed the subject with Ted Gregg on May 2, 1979.

For the purposes of this plan he favors Forest Service providing parking in the Castle Peak-Boreal Ridge area and at Sagehen Summit.

A brief discussion with managers at the Westgate Sports Center and Alpenglow Ski Center indicated that these places of business were interested in helping disseminate information on nordic skiing opportunities to skiers and would be happy to cooperate in any way including handing out brochures and allowing bulletin boards with information inside the stores.

Discussion with Glen Hampton - Recreation Officer - Lake Tahoe Basin Management Unit

1. LTBMU does provide guided cross-country ski tours as a part of this V.I.S. program.

2. They are looking for California State Off-road Vehicle funds to provide parking in Blackwood Creek for snowmobilers. This facility will undoubtedly be used by cross-country skiers.

3. He feels that there is significant cross-country use from the LTBMU into the Barker Pass and McKinney Creek areas on the Truckee District. No use figures available.

4. He thought they had one outfitter guide permit for Nordic skiing.

Discussion with Skip Reedy - Nordic Ski Outfitter/Guide Permittee

1. Skip felt a good average for today's cross country is three and one half miles.

2. He felt that 90% of the skiers he comes into contact with want groomed tracks, safe parking facilities, toilet and food facilities and day care services for their children. He feels that the only way to recover his costs for providing insurance, search and rescue and litter cleanup is to groom track and charge for its use.

3. He feels that the market for lessons and rentals has severely declined because learning to cross-country ski doesn't require extensive lessons and people are buying their own equipment. This severely restricts operations which don't have other means of generating money such as parking and track use fees.

4. He felt that the high price of lift tickets did have an effect of increasing the numbers of people that have taken up cross-country skiing.

5. He felt that in the last ten years the average type of individual who cross-country skis has changed and that a desire for solitude was not the major consideration it once was. He couldn't comment on the number of people the average skier would be willing to encounter in a day before the quality of his experience would be lowered.

6. He felt that the conflict between skiers and snowmobilers was inherent. That basically the snowmobilers didn't care whether the skiers were using an area, if they didn't make trouble, but that the skier did not like the snowmobiles. He felt that the maximum separation between the two uses should be provided and that more areas should be set up to exclude snowmobiles.

7. He did not think that the Forest Service was doing enough to provide parking and other facilities for Nordic Skiers.

8. He did not feel that promoting or providing overnight cross-country ski programs was economically feasible.

Discussion with Laurie Nassar-Veske
Nordic Ski Outfitter/Guide Permittee

1. She stated that a good day trip for the currently average cross-country skier is three to four miles.

2. She feels that there is a great demand by the public for the types of services and facilities that she could and does provide in some cases. (Parking, toilet, rentals, lessons, guide services, survival instruction, groomed trails and search and rescue). She feels that she should be allowed to groom trails on National Forest and charge for their use. She feels that this is the one area where she can recover her cost of insurance, trash clean-up, search and rescue, etc.

3. She doesn't feel that she can make an economic show by charging for rentals, lessons, guide services and parking. She commented that the rental and lesson trade has slowed drastically because teaching Nordic Skiing does not take that many lessons and then people buy their own equipment.

4. She does not have any facts on the growth of Nordic skiing but felt 80-90% of the skiers she talks to, prefer groomed trails.

5. She felt that many Nordic skiers may be downhill skiers who have been displaced by the high cost of lift tickets.

6. She did not feel that today's Nordic Skier needed solitude but couldn't state how many people they would be willing to encounter in a day.

7. She felt that the conflict between skiers and snowmobilers was inherent and should be dealt with by separation.

8. She did not feel that overnight operations for ski touring had enough interest to make providing the service feasible.

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January 8, 1981

Mr. David A. Hammond
District Ranger
United States Department of Agriculture Forest Service
Truckee, Ranger District
P.O. Box 399
Truckee, CA 95734

Dear Mr. Hammond:

Statistics on the number of participants in the cross country market are hard to gather with any reliability both because manufacturers are loathe to share actual unit sales figures with each other and because cross country skiers are, by nature a fairly private and, therefore, hard to count people. However, based on voluntary market statistics by major suppliers I can give you general information on market growth over the last decade.

Since 1973, the cross country market has experienced annualized growth of roughly 30-35%. This growth realizes active participants level of roughly 4½ million in 1978 (based on a very extensive survey done by Opinion Research for Skiing Magazine in the same year). Since that time, due to poor snow conditions in the East and Midwest, the market has not seen as dramatic a growth. However, again based on common industry estimates, we have seen roughly an additional million people enter the cross country market. That would place the current number of cross country skiers at around 5½ million. It is our opinion that given good snow across the country, cross country skiing will again experience dramatic growth somewhere in the range of 30-40%. However, we have learned that new participation in cross country skiing is weather dependent. The extended existance of snow is necessary to the further growth of the sport.

It is also our opinion that the California area of the country has dramatic growth potential for cross country skiing. As you know there are significant populations within relatively reasonable drive distance from wonderful and often spectacular cross country terrain. The development of suitable cross country skiing facilities in this area certainly will contribute to the growth of the sport in California.

Trak Incorporated
187 Neck Rd
Ward Hill, Mass. 01830 USA
(617) 374-0713

Telex No. 947471 (Trak USA WRDH)

I realize that my response to your letter is very general. If I can be of any further assistance, please don't hesitate to contact me.

Sincerely,

Chris Crosby

Chris Crosby
Marketing Manager

CC/bm

Appendix B

SIGN PLAN AND SCHEDULE

A. Trailhead signs

1. Bulletin Board covered with plexiglas

   Map of Trail

   Brochure on nordic skiing

   Information on Avalanche Forecasting system

   Different types of signs and their meaning.

2. Loop Distance Sign

   Rectangular

   Same color as loop signs

3. Trail sign at the beginning of the trail.

B. Trail Signs

1. Short Trails - up to five miles - white arrow in a red circle.

2. Medium Trails - up to ten miles - white arrow in a yellow square.

3. Long Trails - over ten miles - white arrow in an orange triangle.

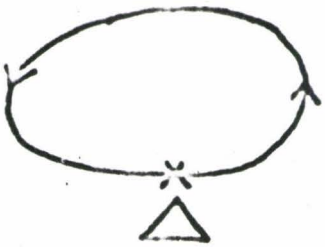
C. Recommended Trail Sign - Glas-tex type fiberglass sign, 6 inch circle, square or triangle.

Appendix B

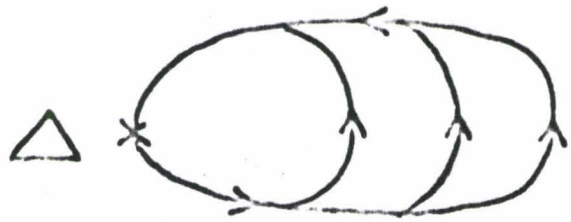
C. Signing Schedule

Cabin Creek	1982
Panonia - Woodchopper	1982
Sagehen - Independence	1982
Prosser Campground	1983
Castle Valley - Round Valley	1983
Pole Creek	1983
Ponderosa Palisades - Bald Mtn.	1984
Summit Lake	1984
Hobart Mills - Sagehen	1984
Prosser Hill	1985
Ponderosa Palisades - Tahoe City	1985
Donner Summit - Mt. Anderson	not recommended
Alpine Meadows - McKinney Creek	1986

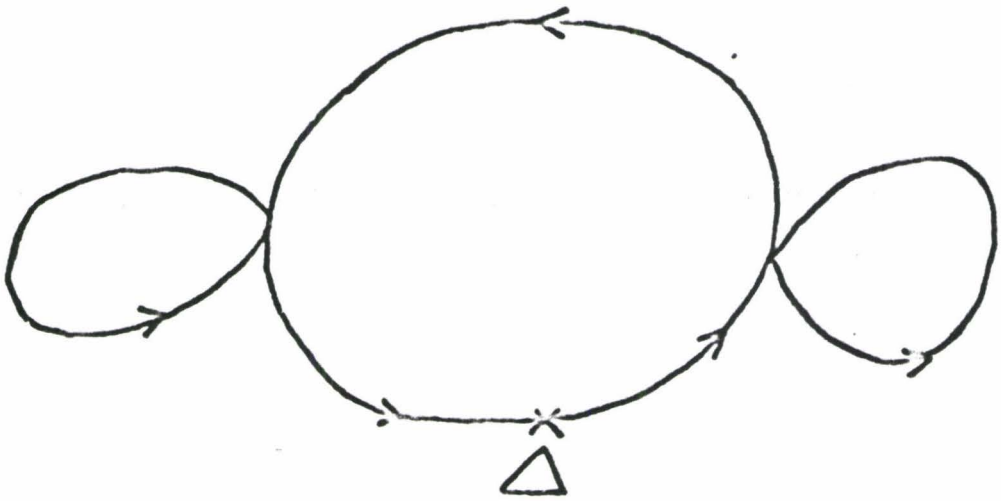
SKI TRAIL DIAGRAMS



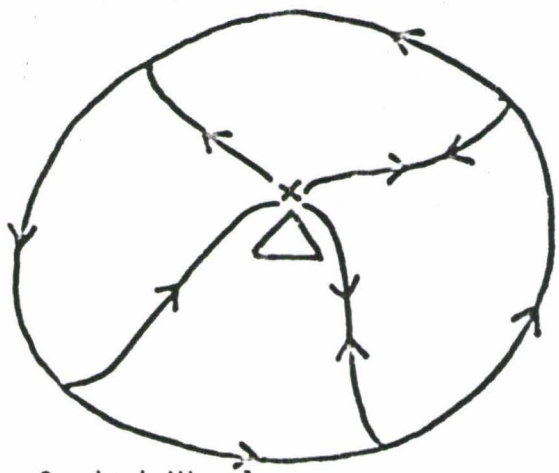
A. Simple Loop



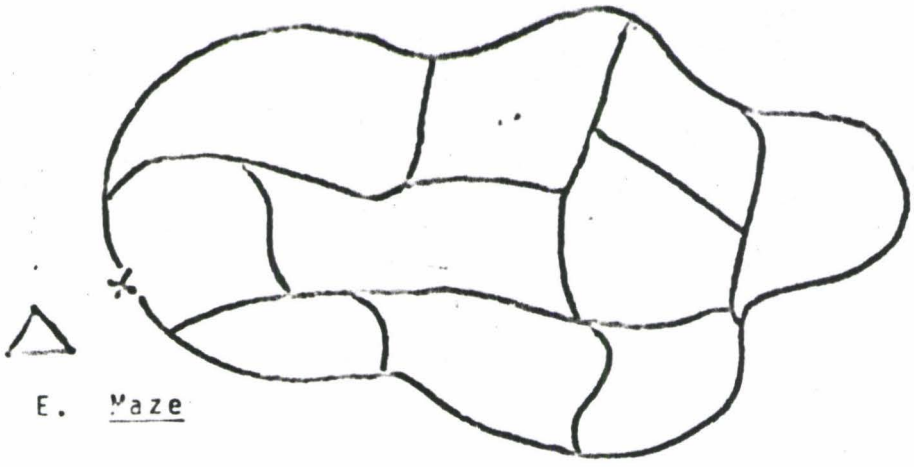
B. Stacked Loops



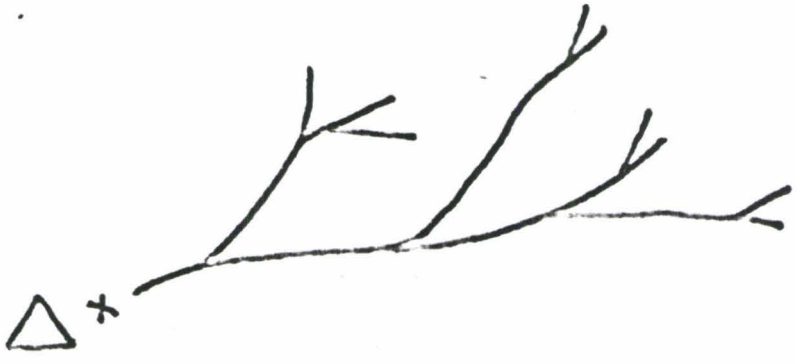
C. Primary Loop with Satellites



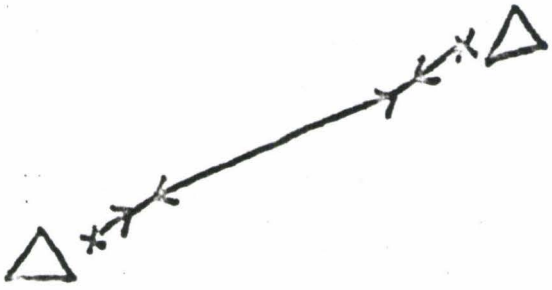
D. Spoked Wheel



E. Maze



F. Dendritic



G. Point-to-Point

H. Figure eight

TRAIL ANALYSIS

RECREATION OPPORTUNITY SPECTRUM

Trail System	Remoteness	Size	Evidence of Humans	Social setting	Managerial Setting
Cabin Creek	S.P.M.	R.N.	S.P.M.	S.P.N.M.	S.P.N.M.
Panonia Woodchopper	R.N.	R.N.	R.	R.N.	S.P.M.
Sagehen-Independence	S.P.N.M.	S.P.N.M.	S.P.N.M.	S.P.N.M.	S.P.N.M.
Prosser Campground	S.P.M.	R.N.	R.N.	R.N.	R.N.
Castle Valley - Round Valley	S.P.N.M.	S.P.N.M.	S.P.N.M.	R.N.	S.P.N.M.
Pole Creek	S.P.N.M.	S.P.N.M.	S.P.N.M.	S.P.N.M.	S.P.N.M.
Ponderosa Palis - Bald Mtn.	S.P.M.	R.N.	S.P.M.	S.P.M.	S.P.N.M.
Summit Lake	S.P.N.M.	R.N.	S.P.N.M.	S.P.M.	P.
Hobart Mills-Sagehen	R.N.	S.P.M.	R.	S.P.N.M.	P.
Prosser Hill	R.N.	R.N.	R.	S.P.N.M.	P.
Ponderosa Palis. - Tahoe City	S.P.N.M.	S.P.N.M.	S.P.M.	S.P.N.M.	P.
Donner Summit - Mt. Anderson	S.P.N.M.	S.P.N.M.	S.P.M.	P.	P.
Alpine Mdws - McKinney Cr.	P.	P.	S.P.N.M.	P.	P.

Code:

P. - Primitive
S.P.N.M. - Semi-Primitive Non Motorized
S.P.M. - Semi Primitive Motorized
R.N. - Roaded Natural
R. - Rural
U. - Urban

For the purposes of this analysis a road is considered to be a road which has the snow removed on a regular basis or can otherwise be identified, with snow on it, as a constructed road.

Appendix C
TRAIL STATISTICS MATRIX

Dev. Priority	Trail Name	R/W needed	Miles of Trail	Number of Skiers/day Present	Number of Skiers/day After Dev.	Exist. Facil. Huts	Exist. Facil. Park	Exist. Facil. Toilet	Exist. Facil. Trash	Facil. Dev. Huts	Facil. Dev. Park	Facil. Dev. Toilet	Facil. Dev. Trash	Map Number	R.O.S. Rating
1.	Cabin Creek	yes	10.0	9.0	30.0	0	0	0	0	0	30	1	yes	1	S.P.M.
2.	Panonia – Woodchopper	NO	8.2	9.0	21.0	0	0	0	0	0	20	1	yes	2	R.N.
3.	Sagehen – Independence	yes	23.3	6.0	15.0	0	0	2	0	0	20	1	yes	3	S.P.N.M.
4.	Prosser – Campground	No	4.0	2.5	9.0	0	15	6	0	0	0	0	yes	2	R.N.
5.	Castle Valley – Round Valley	Yes	15.5	60.0	90.0	1	20	1	0	0	50	2	yes	4	SPNM
6.	Pole Creek	yes	33.6	20.0	50.0	0	15	0	0	0	30	2	yes	5	S.P.N.M
7.	Ponderosa Palisades – Bald Mountain	NO	12.2	6.0	15.0	0	0	0	0	0	30	2	yes	6	S.P.M.
8.	Summit Lake	No	3.5	2.0	2.0	0	0	2	Yes	0	5	0	No	7	SPNM
9.	Hobart Mills – Sagehen	No	44.3	.5	9.0	0	0	0	0	0	30	1	yes	3	R.N.
10.	Prosser Hill	No	5.1	.5	6.0	0	15	0	0	see Prosser campground				2	R.N.
11.	Ponderosa Palisades – Tahoe City	No	16.6	2.0	2.0	0	0	0	0	see Ponderosa Palisades-Bald Mountain				8	SPNM
12.	Donner Summit – Mt. Anderson	Yes	11.3	1.0	2.0	1	0	0	0	0	5	0	No	9	SPNM

Priority	Name	needed	Length of Trail	Skiers/day Present	Skiers/day After Dev.	Huts	Park	Toilet	Trash	Huts	Park	Toilet	Trash	Number	Rating
1.	Cabin Creek	yes	10.0	9.0	30.0	0	0	0	0	0	30	1	yes	1	S.P.M.
2.	Panonia – Woodchopper	NO	8.2	9.0	21.0	0	0	0	0	0	20	1	yes	2	R.N.
3.	Sagehen – Independence	yes	23.3	6.0	15.0	0	0	2	0	0	20	1	yes	3	S.P.N.M.
4.	Prosser – Campground	No	4.0	2.5	9.0	0	15	6	0	0	0	0	yes	2	R.N.
5.	Castle Valley – Round Valley	Yes	15.5	60.0	90.0	1	20	1	0	0	50	2	yes	4	S.P.N.M.
6.	Pole Creek	yes	33.6	20.0	50.0	0	15	0	0	0	30	2	yes	5	S.P.N.M.
7.	Ponderosa Palisades – Bald Mountain	NO	12.2	6.0	15.0	0	0	0	0	0	30	2	yes	6	S.P.M.
8.	Summit Lake	No	3.5	2.0	2.0	0	0	2	Yes	0	5	0	No	7	S.P.N.M.
9.	Hobart Mills – Sagehen	No	44.3	.5	9.0	0	0	0	0	0	30	1	yes	3	R.N.
10.	Prosser Hill	No	5.1	.5	6.0	0	15	0	0	See Prosser campground				2	R.N.
11.	Ponderosa Palisades – Tahoe City	No	16.6	2.0	2.0	0	0	0	0	see Ponderosa Palisades-Bald Mountain				8	S.P.N.M.
12.	Donner Summit – Mt. Anderson	Yes	11.3	1.0	2.0	1	0	0	0	0	5	0	No	9	S.P.N.M.
13.	Alpine Meadows – McKinney Creek	NO	30.0	.2	.2	2	0	1	0	0	0	0	No	10	P.

All estimates for number of skiers are based on 54 weekend and Holiday days per skiing season. Weekdays are not counted.

Appendix D

CONSTRUCTION SCHEDULE

TRAIL SYSTEM	ENVIRONMENTAL ASSESSMENT	DESIGN	RIGHTS OF WAY	CONSTRUCTION
Cabin Creek	1981	1982	1982	1983
Panonia-Woodchopper	1982	1983	none	1984
Sagehen-Independence	1982	1983	1983	1985
Prosser Campground	No construction planned			
Castle Valley - Round Valley	1983	1984	1984	1984
Pole Creek	1984	1986	1986	1987
Ponderosa Palis-Bald Mtn.	1985	1988	None	1989
Summit Lake	1985	1986	None	1988
Hobart Mills-Sagehen	1986	1987	None	1988
Prosser Hill	No construction planned			
Ponderosa Palis - Tahoe City	Same as Pondersoa Palisades - Bald Mtn.			
Donner Summit - Mt. Anderson	1987	1988	1988	1989
Alpine Mdws - McKinney Cr.	No construction planned			

Appendix E

The following is the result of a "brain-storming" process which was necessary to narrow down the scope of this plan. It is included here so that the inssues, concerns and opportunities that could not be dealt with here, will be maintained in the process and available for future analysis.

Issues, Concerns & Opportunities

I. Issues

1. Parking

   (a) Who to provide
   (b) What strategic points
   (c) Free or Charge
   (d) How to pay for snow removal
   (e) Day Use or Overnight
   (f) Expected problems & solutions

2. Trail Marking

   (a) Do we mark or Not
   (b) Volunteer or Force Account
   (c) Design of markers
   (d) R/W across private land

3. Skill Level and/or experience level posting

   (a) Do we determine skill levels and Post Qualifications necessary for determination
   (b) What are liabilites involved
   (c) How do we describe experience levels

4. Commercial Ventures

   (a) Where do they fit with needs and wishes of the public.
   (b) What types of commercial uses are appropriate on N.F. land?
   (c) How do we select permittees that will provide the greatest service to the public (Many people want permits)
   (d) Do we allow outfitter guides to post their own trail system?
   (e) Do we save the best areas for free use by the public?

5. Public Information

   (a) What is the best way to reach the public with Concerns and Opportunities?
   (b) Is a "Cross Country Ski brochure" system desirable?
   (c) What types of information should be given to the public?
   (d) What about Information Specialist (maybe volunteers) at strategic points and times?
   (e) What about getting the cooperation of stores that sell and

rent ski equipment?

II. Concerns

1. Conflicts with other Users

(a) What other users?

Snowmobilers
Snow shoers
Downhill skiers

(b) Are conflicts inherent or can they be solved? (Do they have to use some of the same areas)
(c) Is separation of uses necessary and possible?
(d) If so, how to accomplish?
(e) Is competition for parking a problem?

2. Safety

(a) Back to the question on posting skill levels
(b) Is expanded Nordic Ski patrol volunteer program possible and/or desirable?
(c) Can the "Avalanche Warning System" be better used or publicized? (Define the System)
(d) Should the Forest Service be involved in recommending minimum equipment for certain areas?

III. Opportunities

1. Day Use
(a) What areas exist for a day use experience.
(b) How will this use differ from extended use or overnight.
(1) equipment
(2) parking needs (or mass transit?)
(3) Information needs
(c) Can this use be combined with other recreation activities.

2. Overnight Use
(a) Same as abov
( ) Should the F.S. provide or permit O/N shelters - i.e. cross-country clubs build & maintain.
(c) If so, how will this be done.

3. Extended trips

(a) For what period of time on distance.
(b) What are desirable day length segments
(c) Can day use & O/N systems be tied into this system.
(d) Same questions as 1 & 2 above.
(e) Is this an activity that should be encouraged only through use of an outfitter/guide?

4. Guided Tours

(a) Should the Forest Service get involved in the guided tour business?
(b) If so, how do we finance (check w/LTBMU)
(c) What rasons would the F.S. be involved? Interpretation of what activities.

IV. Public Involvement Plan

1. Who to Involve
   (a) National Ski Touring Operator's Assoc.
       John Wiesel (Western Rep.)
       John Slouber (member)
   (b) Nordic Ski Patrol members
   (c) Individuals involved in cross country skiing (In the feidl interviews)
   (d) Snowmobilers
   (e) Mike Jeneid (Sierra Club - Clair Tappaan)
   (f) Sporting good store owners
       Westgate
       Sun & Ski

2. How to Involve Them
   (a) personal interview
   (b) phone calls
   (c) questionaires
   (d) personal letters

3. Questions to ask
   (a) Skiers
       (1) Do you consider yourself to be a beginner, intermediate or expert skier?
       (2) Would you like to see more involvement in your sport by the F.S.? Such as trail marking, experience and skill level identification of trails or areas?
       (3) Are there other areas where you would like to see the F.S. involved in your sport?
       (4) Do you feel that there are conflicts between your sport and other sports?
       (5) If so, what are the conflicts and do you have suggestions for correcting the situation?
       (6) How do you feel about commercial ventures on private land? What about N.F. land?
       (7) Are you concerned about your safety while practicing your sport and if so what recommendations would you make to the Forest Service?
       (8) Are you aware of the F.S. Avalanche Forecasting and do you use it?
       (9) What do you feel is the largest single deterrent to your practicing, your sport?
       (10) Are you interested in overnight use?

   (b) NASTOA
       (1) Where do you see your commercial venture in relation to use of N.F. land by the public?
       (2) Do you feel that it is possible to make a commercial

venture of being allowed to charge for parking, ski equipment rental & sales and ski instruction but not for use of N.F. land? If not, why not?

(3) Do you envision that you could become a part of an "extended tour" situation on N.F. land where you become a link in the chain? (a cross country ski circus scheme)

(4) Any other comments on the future of cross country skiing?

(c) Nordic Ski Patrol

(1) How do you feel about your volunteer effort? Is it worthwhile and are you providing a needed service to the public?

(2) What do you think the chances are of expanding the service you provide, to other areas? Are enough people interested?

(3) Do you feel we are giving enough information to the public and can you suggest better ways or other information to give them?

(4) What is your perception of the problem of conflict between uses?

(5) How do you feel about signing for skill and experience levels?

(6) Do you think the F.S. should be marking trails and if so, why?

(7) Should the F.S. be posting avalanche areas and/or doing avalanche work?

(8) How do you feel about commercial ventures on private land? On N.F. land?

(9) Do you think there should be some minimum skill/experience level requirements for nordic ski patrol?

(d) Cal-Trans

(1) Is Cal-Trans interested in providing parking for cross-country skiers as well as snowmobilers?

(2) Do you see any opportunity to provide for overnight parking as well as day use?

(3) What particular problems are created by snow user parking and what solutions do you see for these problems.

(e) Sporting Goods Store Owners

(1) Do you feel there is any money to be made in renting equipment to cross country skiers and then providing parking and a bus shuttle service to popular ski area?

(2) Can you estimate the % increase in cross country sales and rentals in the last three years?

(3) Would you be willing to help the F.S. in dissemination of information to cross-country skiers?

(4) Do you have access to cross country safety information put out by manufacturers on national organizations?

(5) Would you be interested in participating in seminars or safety programs for cross country skiers?

(f) Snow mobilers

(1) Do you feel that a conflict situation exists between your sport and cross country skiing?
(2) If so, do you have any suggestions for solving the conflicts?
(3) Can you use the same areas with separate routes?
(4) What do you feel causes the conflict?